

CLAIMS

1. A method for producing self-supporting container parts, such as dishes or covers, for containers for foodstuffs to be treated in a microwave oven, said containers each comprising at least one compartment for receiving the foodstuffs, along at least part of the circumferential surface of which compartment a microwave-radiation influencing material layer is provided in the wall of at least one associated container part, comprising the steps of

10 - providing a multilayer foil comprising said microwave radiation-influencing material layer and at least one material layer that does not influence microwave radiation, which is bonded thereto on at least one side of the microwave radiation-influencing material layer,

15 - bonding one side of the multilayer foil to a remaining portion of the container part in question, in such a manner that the material layer of the multilayer foil that does not influence microwave radiation is present on a free surface of the container part.

20 2. A method according to claim 1, comprising the step of bonding the multilayer foil to the remaining portion of the container part in such a manner that the material layer of the multilayer foil that does not influence microwave radiation is present on the outer side of the container part.

25 3. A method according to claim 1 or 2, comprising the step of bonding the multilayer foil to the remaining portion of the container part being carried out by positioning the multilayer foil inside the mould during the forming of a container part in said mould for the purpose of bonding the microwave-influencing material layer to the remaining portion of the container part during said forming of the container part.

4. A method according to claim 3, comprising the step of forming the container parts by injection-moulding the container parts in an injection mould.

5. A method according to claim 3, comprising the step of forming the container parts by thermoforming the container parts in a thermoforming mould.

10 6. A method according to claim 1 or 2, comprising the step of joining the multilayer foil to the remaining portion of the container part by glueing the multilayer foil to the remaining portion of the container part by means of an adhesive layer outside a mould.

7. A method according to claim 6, comprising the step of thermoforming the container part in a thermoforming mould after the multilayer foil has been glued onto the remaining portion of the container part.

15 8. A method according to any one of the preceding claims, wherein the microwave radiation-influencing material layer is provided with holes.

9. A method according to claim 8, wherein said holes are provided in different patterns for different compartments.

20 10. A method according to claim 8 or 9, wherein said holes are provided in different sizes for different compartments.

11. A method according to claim 8, 9 or 10, wherein the material layer that does not influence microwave radiation is a closed layer.

25 12. A method according to claim 8, 9 or 10, wherein said multilayer foil is provided with through holes.

13. A method according to any one of the claims 8, 9, 10, 11 or 30 12, wherein the holes in the microwave radiation-influencing material layer are formed in the same production line as the one in which the multilayer foil is bonded to the remaining portion of the container part in question.

14. A method according to any one of the preceding claims, wherein the multilayer foil comprises cut-out corner portions.

5 15. A method according to any one of the preceding claims, wherein the multilayer foil is provided in a condition in which a material layer that does not influence microwave radiation is present on either side of the microwave radiation-influencing material layer.

10 16. A method according to claim 15, wherein one of the two material layers that do not influence microwave radiation is detached from the multilayer foil before the multilayer foil is bonded to the remaining portion of the container part.

17. A method according to any one of the preceding claims, wherein the material layer(s) that do(es) not influence microwave radiation is/are made of the same material as the remaining portion of the container part.

15 18. A method according to any one of the preceding claims, wherein the upper side of a compartment of a container, after being filled with a foodstuff, is covered with a further multilayer foil comprising a further microwave radiation-influencing material layer and at least one material layer that does not influence microwave radiation, 20 which is bonded thereto on one side of said further microwave radiation-influencing material layer, in such a manner that said further microwave radiation-influencing material layer of said further multilayer foil is present on the side remote from the interior of the filled compartment of said further material layer that does not influence microwave radiation.

25 19. A method according to claim 18, wherein said further multilayer foil is directly bonded to an upper circumferential edge of the filled compartment.

20. A method according to claim 18, wherein said further multilayer foil is glued onto a separate sealing foil, which is directly 30 bonded to an upper circumferential edge of the filled compartment.

21. A method according to any one of the preceding claims,

characterized in that the multilayer foil is electrostatically chargeable.

22. A container part produced in accordance with any one of the preceding claims.

5 23. A container part according to claim 22, provided with connecting means for being interconnected with other container parts.

24. A container part according to claim 22 or 23, characterized in that the microwave radiation-influencing material layer comprises aluminium.

10 25. A container part according to claim 22, 23 or 24, characterized in that the at least one material layer that does not influence microwave radiation comprises polypropylene.

15 26. A container part according to claim 22, 23, 24 or 25, characterized in that the at least one material layer that does not influence microwave radiation comprises paper.

27. A container part according to any one of the claims 22-26, characterized in that the microwave radiation-influencing material layer has a thickness of maximally 50 µm, more preferably maximally 30 µm.

20 28. A container part according to any one of the claims 22-27, characterized in that the multilayer foil has a thickness of maximally 200 µm, more preferably maximally 100 µm.

29. A container part according to any one of the claims 22-28, characterized in that legs are provided, via which the container part can rest on a supporting surface.

25 30. A container part according to any one of the claims 22-29, characterized in that means for connecting the container part to an associated other container part are provided along the circumferential edge of at least two compartments.

30 31. A method for producing a multilayer foil provided with holes for use in a method according to claim 12 or a dependent claim thereof, comprising the steps of

- providing a closed multilayer foil,
- die-cutting the holes in the multilayer foil.

32. A method for producing a multilayer foil provided with holes for use in a method according to claim 12 or a dependent claim thereof, comprising the steps of

- providing a closed multilayer foil,
- cutting the holes in the multilayer foil by means of a laser beam.

33. A method for producing a multilayer foil for use in a method according to claim 11 or a dependent claim thereof, comprising the steps of

- providing a microwave radiation-influencing material layer,
- forming holes in said microwave radiation-influencing material layer,

15 - glueing a closed material layer that does not influence microwave radiation onto one side of the microwave radiation-influencing material layer.

34. A method for producing a multilayer foil for use in a method according to claim 15 or a dependent claim thereof, comprising the steps of

- providing a microwave radiation-influencing material layer,
- forming holes in said microwave radiation-influencing material layer,

20 - glueing a closed material layer that does not influence microwave radiation onto both sides of the microwave radiation-influencing material layer.

25 35. A method according to claim 33 or 34, wherein a strengthening layer is glued onto the microwave radiation-influencing material layer prior to the forming of holes in said microwave radiation-influencing material layer.

30 36. A method according to claim 35, wherein holes corresponding

to the holes in the microwave radiation-influencing material layer are formed in the strengthening layer concurrently with the forming of holes in the microwave radiation-influencing material layer.

37. A method according to claim 34 or a dependent claim
5 thereof, wherein one of the closed material layers that do not influence microwave radiation is glued with a glue type that allows subsequent breaking of the glued joint so as to make it possible to separate the respective closed material layer that does not influence microwave radiation from the remaining portion of the multilayer foil at a later
10 stage.

38. A multilayer foil produced in accordance with any one of the claims 31-37.